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# Annals of the Missouri Botanical Garden

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## AN EDIBLE GARDEN HEBELOMA<sup>1</sup>

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The species of *Hebeloma* have been so invariably found in woods in autumn in the past that it occasioned great surprise to find a fine species of this genus in great abundance, June 3, in cultivated borders of the Missouri Botanical Garden. The mycelium of this species was well developed and could be followed to the strawy manure which had been spaded underground in the borders.

Species of *Hebeloma* have usually a nauseous odor or taste, or an odor or taste of radishes, or may be bitter, and are regarded as unwholesome and, in some cases, even poisonous. Specimens of this garden collection were of good size, with pileus 4–10 cm. in diameter, not infested with larvae, not rapidly putrescent, with a pleasant farinaceous taste and odor. This species gave promise of being a very desirable acquisition if its edibility could be established. This was done by cooking specimens in butter and eating a small portion of a pileus with other food at dinner. As no disagreeable symptoms were experienced over night, double the quantity of the fungus was eaten at breakfast. This procedure was carried on until three fructifications were eaten at one time, when others also ate the fungus with equal freedom and decided that this species is palatable and has a delicious characteristic flavor.

The specimens did not have as large size and as great weight

<sup>1</sup> Issued October 11, 1919.

as those of *Agaricus campestris* when the latter is grown as a mushroom for the market but they are of good size and weight, are firm and keep well, and have a flavor of good quality which is distinct from that of *Agaricus campestris*. These are desirable qualities in a market species of mushroom. The origin of the mycelium in the strawy manure which was spaded into the soil suggests that preparation of the spawn and method of growing under cultivation might be the same as those employed for the common mushroom, *A. campestris*.

This garden *Hebeloma* is apparently of local occurrence, for its characteristics do not agree with those of any species heretofore known. It may be that the normal season of this mushroom is spring or early summer, as is the case with *Pholiota vermiflua*, a species which was abundant in the Missouri Botanical Garden at the same time. The month of May preceding had been very wet and with frequent storms throughout the month. The name and description of this species are as follows:

***Hebeloma hortense* Burt, n. sp.**

Plate 3.

§*Denudata*. Pileus glabrous, veil absent from the first.

Type: in Mo. Bot. Gard. Herb., 54130, and in Burt Herb.

Pileus fleshy, convex, umbonate, becoming expanded, even, glabrous, pale Isabella-color when moist, becoming cartridge-buff, with the umbo pinkish buff, the margin slightly inrolled when very young; flesh whitish, farinaceous; odor not disagreeable, not of radishes; lamellae broad, slightly sinuate, moderately close, white at first, becoming Isabella-color, the edge entire and not distilling drops; stem fleshy, hollow, equal or slightly bulbous at the base, fibrillose, mealy above when young, with no trace of a veil or cortina; spores Rood's brown in spore collection, even, 10–11 x 6  $\mu$ , borne in fours on protruding basidia; no cystidia present or not noteworthy.

Pileus 4–10 cm. broad; stem 4–9 cm. long, 4–10 mm. thick.

In cultivated borders where a straw manure had been worked into the ground. St. Louis, Missouri. Abundant in early June after prolonged rains.

The fructifications occur singly or in small clusters of two or three. This species is noteworthy in its genus by absence of

viscosity and odor of radishes, and by its large size and occurrence in abundance in cultivated ground. Nearly all other species of *Hebeloma* are inhabitants of forests and occur there sparingly. Fresh specimens have a pleasant farinaceous taste and odor, and keep well. This species is edible and with a pleasant and distinctive flavor.

## EXPLANATION OF PLATE

## PLATE 3

The figures of this plate have been reproduced natural size.

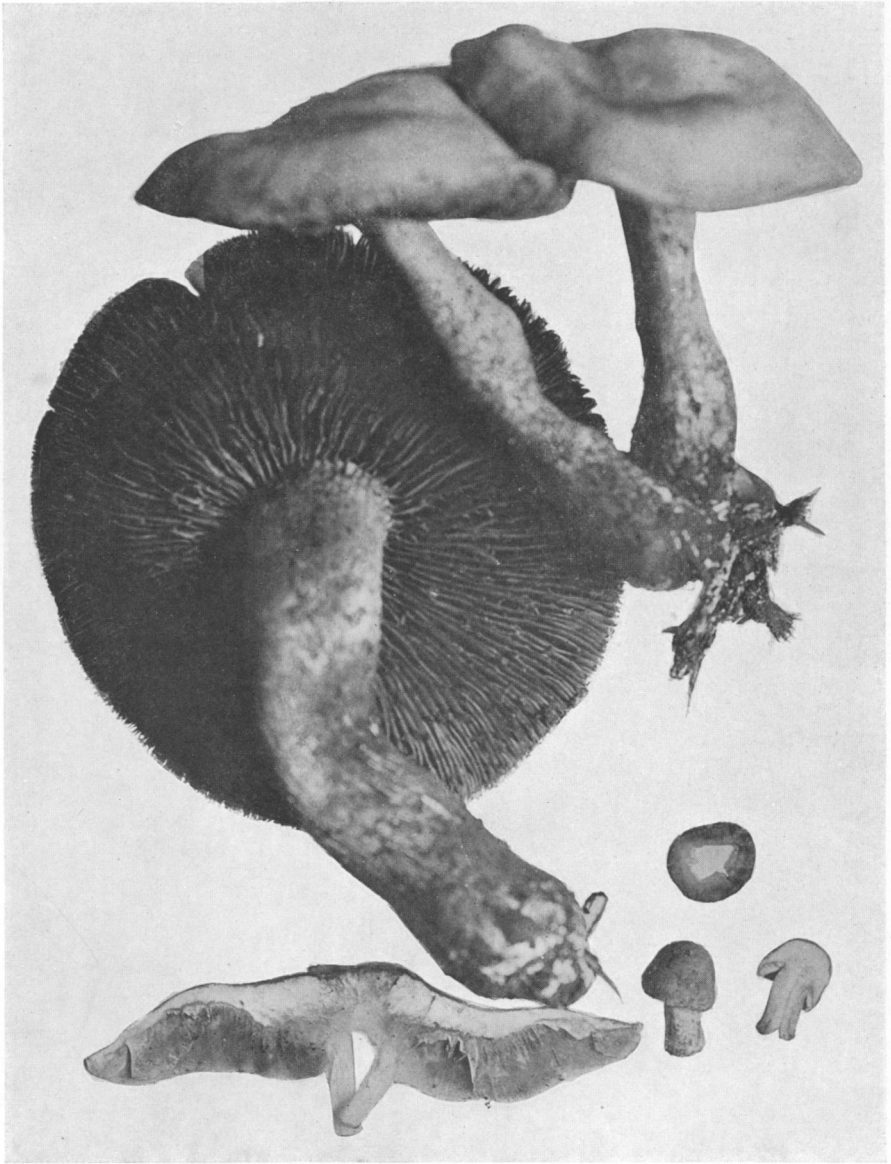
A cluster of two specimens viewed from above to show form of pileus.

A single specimen showing the lamellae and stem.

Median vertical section through pileus and upper part of stem to show breadth and attachment of the lamellae.

Transverse section of the hollow stem.

A very young fructification split lengthwise to show slightly inrolled margin of pileus and the absence of a veil or cortina.



BURT—HEBELOMA HORTENSE